

ABSTRACT

A method for eliminating slip dislocations in producing single crystal silicon, a seed crystal capable of eliminating the slip dislocations, a single crystal silicon ingot from which the slip dislocations have been eliminated and a single crystal silicon wafer, are disclosed. Single crystal silicon is produced by dipping a seed crystal in a melt and pulling the seed crystal up along the axis of the seed crystal, using a single crystal (1) in which the $\langle 110 \rangle$ crystal orientation (10) is inclined at a predetermined angle θ with respect to the axial direction (9) so that the edge direction (8) of the $\{111\}$ crystal plane is inclined with respect to the axial direction (9). When single crystal silicon is grown while pulling up a seed crystal by the CZ method, a single crystal silicon ingot of a large diameter and a heavy weight can be pulled up by eliminating slip dislocations from the thick crystal.